Title (en)

LITHIUM SECONDARY BATTERY HAVING IMPROVED RATE CHARACTERISTICS

Title (de)

LITHIUMSEKUNDÄRBATTERIE MIT VERBESSERTEN FREQUENZEIGENSCHAFTEN

Title (fr)

BATTERIE RECHARGEABLE AU LITHIUM PRÉSENTANT DES CARACTÉRISTIQUES DE RÉGIME AMÉLIORÉES

Publication

EP 2822083 A1 20150107 (EN)

Application

EP 13778107 A 20130418

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Abstract (en)

Disclosed is a lithium secondary battery with improved rate characteristics. More particularly, disclosed is a lithium secondary battery including a cathode, an anode, a separator disposed between the cathode and the anode, and an electrolyte, wherein the electrolyte includes a mixed solvent of a cyclic carbonate-based material and a propionate-based material, the cathode includes a lithium manganese composite oxide represented by Formula 1 below as a cathode active material, and the anode includes a lithium metal oxide represented by Formula 2 below as an anode active material: ##########Li x M y Mn 2-y O 4-z A z ##########(1) wherein 0.9#¤x#¤1.2, 0<y<2, and 0#¤z<0.2; M is at least one element selected from the group consisting of Al, Mg, Ni, Co, Fe, Cr, V, Ti, Cu, B, Ca, Zn, Zr, Nb, Mo, Sr, Sb, W, Ti, and Bi; and A is at least one monovalent or divalent anion, ##########Li a M' b O 4-c A c ##########(2) wherein M' is at least one element selected from the group consisting of Ti, Sn, Cu, Pb, Sb, Zn, Fe, In, Al, and Zr; 0.1#¤a#¤4 and 0.2#¤b#¤4 wherein a and b are determined according to oxidation number of M'; 0#¤c<0.2 wherein c is determined according to oxidation number of A; and A is at least one monovalent or divalent anion.

IPC 8 full level

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Cited by

US11888107B2; WO2019094215A1

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Designated extension state (EPC)

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DOCDB simple family (publication)

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